Connecting via Winsock to STN

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LOGINID:SSPTANSC1625

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

| | | |
|---|---|---|
| NEWS 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS 2 | JUL 28 | CA/CAplus patent coverage enhanced |
| NEWS 3 | JUL 28 | EPFULL enhanced with additional legal status information from the epoline Register |
| NEWS 4 | JUL 28 | IFICDB, IFIPAT, and IFIUDB reloaded with enhancements |
| NEWS 5 | JUL 28 | STN Viewer performance improved |
| NEWS 6 | AUG 01 | INPADOCDB and INPAFAMDB coverage enhanced |
| NEWS 7 | AUG 13 | CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998 |
| NEWS 8 | AUG 15 | CAOLD to be discontinued on December 31, 2008 |
| NEWS 9 | AUG 15 | CAplus currency for Korean patents enhanced |
| NEWS 10 | AUG 27 | CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information |
| NEWS 11 | SEP 18 | Support for STN Express, Versions 6.01 and earlier, to be discontinued |
| NEWS 12 | SEP 25 | CA/CAplus current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances |
| NEWS 13 | SEP 26 | WPIDS, WPINDEX, and WPIX coverage of Chinese and and Korean patents enhanced |
| NEWS 14 | SEP 29 | IFICLS enhanced with new super search field |
| NEWS 15 | SEP 29 | EMBASE and EMBAL enhanced with new search and display fields |
| NEWS 16 | SEP 30 | CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents |
| NEWS 17 | OCT 07 | EPFULL enhanced with full implementation of EPC2000 |
| NEWS 18 | OCT 07 | Multiple databases enhanced for more flexible patent number searching |
| NEWS 19 | OCT 22 | Current-awareness alert (SDI) setup and editing enhanced |
| NEWS 20 | OCT 22 | WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications |
| NEWS 21 | OCT 24 | CHEMLIST enhanced with intermediate list of pre-registered REACH substances |

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

| | |
|---|---|
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS IPC8 | For general information regarding STN implementation of IPC 8 |

```
Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:28:01 ON 17 NOV 2008

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 15:28:31 ON 17 NOV 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   16 NOV 2008  HIGHEST RN 1072892-84-2
DICTIONARY FILE UPDATES:  16 NOV 2008  HIGHEST RN 1072892-84-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

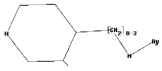
TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

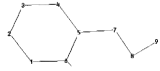
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\STNEXP\Queries\piperidines-N-aryl.str
```





```
chain nodes :
7  8  9  12
ring nodes :
1  2  3  4  5  6
chain bonds :
5-7  6-12  7-8  8-9
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6
exact/norm bonds :
1-2  1-6  2-3  3-4  4-5  5-6  6-12  8-9
exact bonds :
5-7  7-8


G1:H,F

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:CLASS  8:CLASS  9:Atom  12:CLASS

Generic attributes :
9:
Saturation             : Unsaturated




L1      STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1              STR
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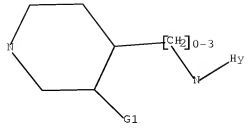



G1 H,F

Structure attributes must be viewed using STN Express query preparation.

```
=> S SSS SAM L1
SAMPLE SEARCH INITIATED 15:28:49 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   112985 TO ITERATE

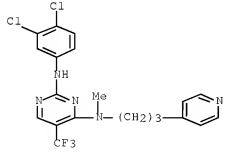
  1.8% PROCESSED     2000 ITERATIONS                                35 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **INCOMPLETE**
PROJECTED ITERATIONS:      2239759 TO  2279641
PROJECTED ANSWERS:           36877 TO    42211

L2           35 SEA SSS SAM L1

=> D SCAN

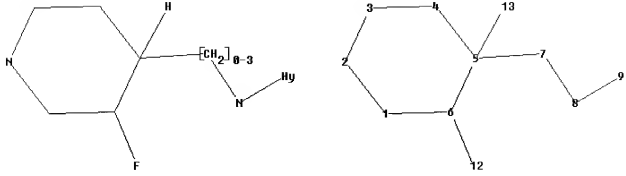
L2   35 ANSWERS   REGISTRY  COPYRIGHT 2008 ACS on STN
IN   2,4-Pyrimidinediamine, N2-(3,4-dichlorophenyl)-N4-methyl-N4-[3-(4-
     pyridinyl)propyl]-5-(trifluoromethyl)-
MF   C20 H18 C12 F3 N5
```




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>
Uploading C:\Program Files\STNEXP\Queries\10559153A.str

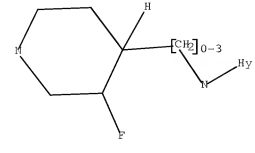



chain nodes :
7 8 9 12 13
ring nodes :
1 2 3 4 5 6
chain bonds :
5-7 5-13 6-12 7-8 8-9
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9
exact bonds :
5-7 5-13 6-12 7-8

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 12:CLASS 13:CLASS
Generic attributes :
9:
Saturation : Unsaturated

L3 STRUCTURE UPLOADED

=> D L3
L3 HAS NO ANSWERS
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> S SSS SAM L3
SAMPLE SEARCH INITIATED 15:32:08 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1274 TO ITERATE

100.0% PROCESSED 1274 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

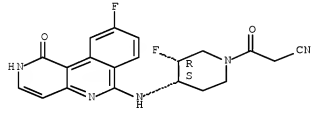
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 23339 TO 27621
PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

=> D SCAN

L4 2 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 1-Piperidinepropanenitrile, 3-fluoro-4-[(9-fluoro-1,2-dihydro-1-oxobenzo[c][1,6]naphthyridin-6-yl)amino]-β-oxo-, (3R,4S)-
MF C20 H17 F2 N5 O2

Absolute stereochemistry.

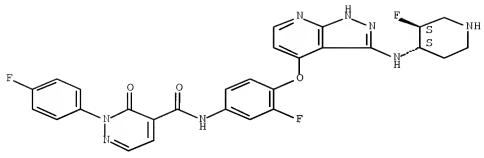


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L4 2 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 4-Pyridazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, rel-
MF C28 H23 F3 N8 O3
CI COM

Relative stereochemistry.



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

ALL ANSWERS HAVE BEEN SCANNED

=> S SSS FULL L3
FULL SEARCH INITIATED 15:32:39 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 25369 TO ITERATE

100.0% PROCESSED 25369 ITERATIONS 104 ANSWERS
SEARCH TIME: 00.00.01

L5 104 SEA SSS FUL L3

=> FIL SAVE L5 TEMP NIGE10559153/A
'SAVE' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):END

=> SAVE L5 TEMP NIGE10559153/A
ANSWER SET L5 HAS BEEN SAVED AS 'NIGE10559153/A'

=> FIL CAPLUS

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 182.04 | 182.25 |

FILE 'CAPLUS' ENTERED AT 15:33:52 ON 17 NOV 2008
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FILE COVERS 1907 - 17 Nov 2008 VOL 149 ISS 21
FILE LAST UPDATED: 16 Nov 2008 (20081116/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

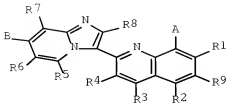
=> S L5
L6 7 L5

=> D IBIB ABS HITSTR L6 1-7

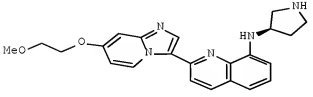
L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:1248220 CAPLUS Full-text
DOCUMENT NUMBER: 149:471456
TITLE: Preparation of imidazo[1,2-a]pyridine compounds as receptor tyrosine kinase inhibitors
INVENTOR(S): Allen, Shelley; Greschuk, Julie Marie; Kallan, Nicholas C.; Marmsaeter, Fredrik P.; Munson, Mark C.; Rizzi, James P.; Robinson, John E.; Schlachter, Stephen T.; Topalov, George T.; Zhao, Qian; Lyssikatos, Joseph P.
PATENT ASSIGNEE(S): Array Biopharma Inc., USA
SOURCE: PCT Int. Appl., 89pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008124323 | A1 | 20081016 | WO 2008-US58395 | 20080327 |
| W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| PRIORITY APPLN. INFO.: | | | US 2007-909857P | P 20070403 |

GI




I




II

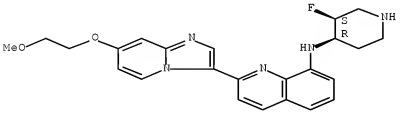
AB The title compds. with general formula I [wherein A = (un)substituted N- or O-linked heterocyclic ring; B = H, CN, OH, (un)substituted (hetero)aryl, etc.; R1-R4 = independently H, F, Cl, CN, etc.; R9 = H, F, Cl, or Me; R5-R8 = independently H, F, Cl, CN, or Me] or pharmaceutically acceptable salts thereof were prepared as tyrosine kinase receptor inhibitors useful in the treatment of diseases mediated by class 3 or class 5 tyrosine kinases receptors. Particularly, compds. of this invention have been found to be inhibitors of Pim-1. For example, compound II was prepared in a multi-step synthesis. All the invention compds. were evaluated for their tyrosine kinase receptor inhibitory activity. From the assay, it was determined that II and all other tested compds. exhibited the IC50 values of < 10 μM against cellular PDGFR.

IT 1070896-26-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of imidazo[1,2-a]pyridine compds. as receptor tyrosine kinase inhibitors)

RN 1070896-26-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

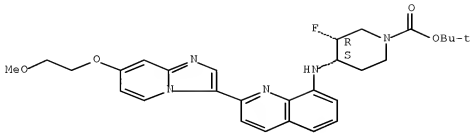
Relative stereochemistry.




IT 1070896-86-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazo[1,2-a]pyridine compds. as receptor tyrosine kinase

inhibitors)
RN 1070896-86-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

Relative stereochemistry.

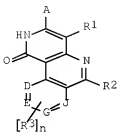



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:1122672 CAPLUS Full-text
DOCUMENT NUMBER: 149:378706
TITLE: Preparation of benzonaphthyridinones as inhibitors of janus kinases and/or 3-phosphoinositide-dependent protein kinase-1
INVENTOR(S): Kozina, Ekaterina; Dinsmore, Christopher; Siu, Tony; Young, Jonathan; Northrup, Alan; Altman, Michael; Keenan, Kevin A.; Guerin, David J.; Jung, Joon O.; Maccoss, Rachel N.; Kattar, Solomon
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 248pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008112217 | A1 | 20080918 | WO 2008-US3206 | 20080310 |
| W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: US 2007-906753P P 20070313
OTHER SOURCE(S): MARPAT 149:378706
GI



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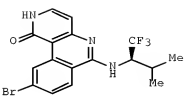


II

AB The title compds. I [D, E, G, J = CH, N or NO; R1 = H, alkyl, cycloalkyl, etc.; R2 = NR5R6, SR5, OR5, etc.; R3 = H, alkyl, cycloalkyl, etc.; R4 = H, alkyl; R5 = H, alkyl, cycloalkyl; A = H, alkyl, cycloalkyl, etc.; n = 0-3] that inhibit JAK2 tyrosine kinase and/or PDK1, were prepared and formulated. E.g., a multi-step synthesis of(1R)-II, starting from 4-bromobenzoyl chloride and diisopropylamine, was given. Compds. I are potent inhibitors of recombinant purified JAK2 kinase activity with an IC50 of approx. 0.1 nM - 20 μM. The invention also provides for compns. comprising compds. I and methods of inhibiting JAK2 tyrosine kinase activity and/or PDK1 kinase inhibitory activity by administering the compound I to a patient in need of treatment or prevention of myeloproliferative disorders or cancer.

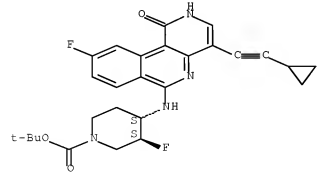
IT 1058128-21-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of benzonaphthyridinones as inhibitors of janus kinases and/or 3-phosphoinositide-dependent protein kinase-1)

RN 1058128-21-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[4-(2-cyclopropylethynyl)-9-fluoro-1,2-dihydro-1-oxobenzo[c][1,6]naphthyridin-6-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.

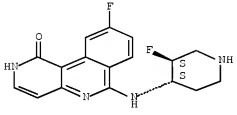


IT 1058125-85-1P 1058126-35-4P 1058126-36-5P

1058126-37-6P 1058127-16-4P 1058128-22-5P
1058128-23-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzonaphthyridinones as inhibitors of janus kinases and/or 3-phosphoinositide-dependent protein kinase-1)

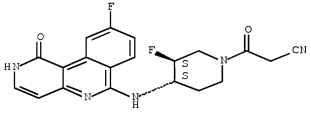
RN 1058125-85-1 CAPLUS
CN Benzo[c][1,6]naphthyridin-1(2H)-one, 9-fluoro-6-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



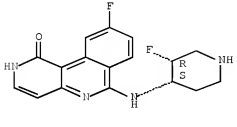
RN 1058126-35-4 CAPLUS
CN 1-Piperidinepropanenitrile, 3-fluoro-4-[(9-fluoro-1,2-dihydro-1-oxobenzo[c][1,6]naphthyridin-6-yl)amino]-β-oxo-, (3S,4S)- (CA INDEX NAME)

Absolute stereochemistry.



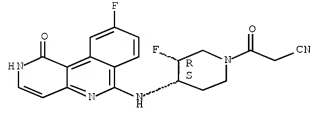
RN 1058126-36-5 CAPLUS
CN Benzo[c][1,6]naphthyridin-1(2H)-one, 9-fluoro-6-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



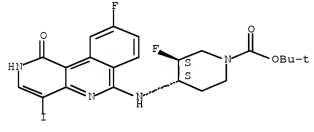
RN 1058126-37-6 CAPLUS
CN 1-Piperidinepropanenitrile, 3-fluoro-4-[(9-fluoro-1,2-dihydro-1-oxobenzo[c][1,6]naphthyridin-6-yl)amino]-β-oxo-, (3R,4S)- (CA INDEX NAME)

Absolute stereochemistry.



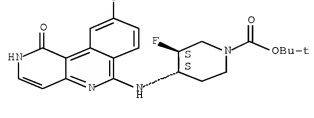
RN 1058127-16-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(9-fluoro-1,2-dihydro-4-iodo-1-oxobenzo[c][1,6]naphthyridin-6-yl)amino]-, 1,1-dimethylethyl ester, (3R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 1058128-22-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(9-fluoro-1,2-dihydro-1-oxobenzo[c][1,6]naphthyridin-6-yl)amino]-, 1,1-dimethylethyl ester, (3R,4R)-rel- (CA INDEX NAME)

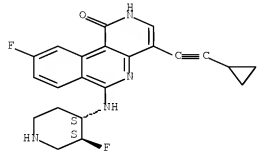
Relative stereochemistry.



RN 1058128-23-6 CAPLUS
CN Benzo[c][1,6]naphthyridin-1(2H)-one,

4-(2-cyclopropylethynyl)-9-fluoro-6-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:853971 CAPLUS Full-text

DOCUMENT NUMBER: 149:176332

TITLE: Preparation of fused pyridine derivatives as JAK3 inhibitors for treatment of autoimmune disease, leukemia, etc.

INVENTOR(S): Shirakami, Shohei; Inoue, Takayuki; Mukoyoshi, Koichiro; Nakajima, Yutaka; Usuda, Hiroyuki; Hamaguchi, Hisao; Higashi, Yasuyuki; Hatanaka, Keiko

PATENT ASSIGNEE(S): Astellas Pharma Inc., Japan

SOURCE: PCT Int. Appl., 130pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

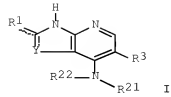
PATENT INFORMATION:

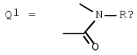
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008084861 | A1 | 20080717 | WO 2008-JP50300 | 20080111 |
| W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: JP 2007-5236 A 20070112

OTHER SOURCE(S): MARPAT 149:176332

GI





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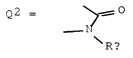
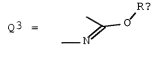




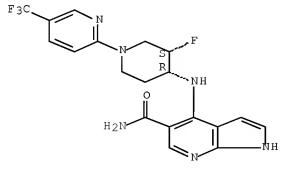
AB The title compds. I [R1 = H, oxo; R3 = (alkyl-substituted) carbamoyl, (alkyl-substituted) oxadiazolyl; R21 = H; or R21 may together with R3 form Q1, Q2, Q3, etc.; Ra = H, alkyl; Rb = H, alkyl; Rc = H, alkyl, alkyl-O-alkyl; R22 = (un)substituted 5- to 7-membered N-containing heterocycloalkyl, cycloalkyl, benzyl, etc.; Y = N, CH, CH2; the dotted line together with the solid line indicates a single or double bond : when one set of dotted line and solid line indicates a single bond, the other set of dotted line and solid line indicates a double bond] are prepared Thus, 4-([1-(5-cyanopyrimidin-2-yl)piperidin-4-yl]amino)-1H-pyrrolo[2,3- b]pyridine-5-carboxamide was prepared from 4-([1-(5-bromopyrimidin-2-yl)piperidin-4-yl]amino)-1H-pyrrolo[2,3- b]pyridine-5-carboxamide. In an assay for JAK3 inhibiting activity, compds. of this invention showed IC50 values of 0.3 nM to 10 nM.

IT 1039740-35-6P 1039740-37-8P 1039740-39-0P
1039740-40-3P 1039740-41-4P 1039740-42-5P
RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of fused pyridine derivs. as JAK3 inhibitors)

RN 1039740-35-6 CAPLUS

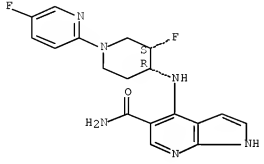
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide, 4-[[(3R,4S)-3-fluoro-1-[5-(trifluoromethyl)-2-pyridinyl]-4-piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



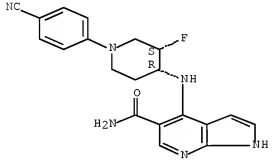
RN 1039740-37-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-3-fluoro-1-(5-fluoro-2-pyridinyl)-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



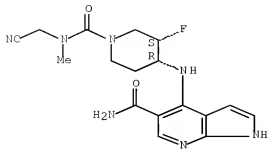
RN 1039740-39-0 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(4-cyanophenyl)-3-fluoro-4-piperidinyl]amino]-, rel- (CA
INDEX NAME)

Relative stereochemistry.



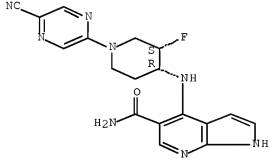
RN 1039740-40-3 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-[[(cyanomethyl)methylamino]carbonyl]-3-fluoro-4-
piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



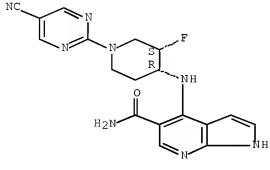
RN 1039740-41-4 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(5-cyano-2-pyrazinyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



RN 1039740-42-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(5-cyano-2-pyrimidinyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

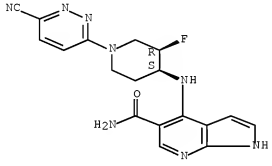
Relative stereochemistry.



IT 1039738-45-8P 1039738-46-9P 1039738-50-5P
1039738-52-8P 1039738-55-0P 1039738-57-2P
1039738-60-7P 1039738-62-9P 1039738-64-1P
1039738-79-8P 1039739-42-8P 1039739-84-8P
1039739-90-6P 1039739-91-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of fused pyridine derivs. as JAK3 inhibitors)

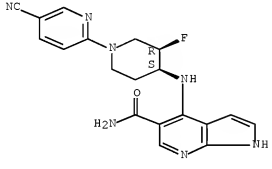
RN 1039738-45-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide, 4-[[(3R,4S)-1-(6-cyano-3-pyridazinyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



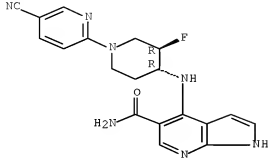
RN 1039738-46-9 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide, 4-[[(3R,4S)-1-(5-cyano-2-pyridinyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



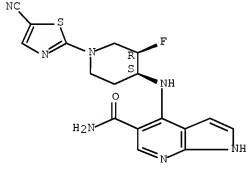
RN 1039738-50-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide, 4-[[(3R,4R)-1-(5-cyano-2-pyridinyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



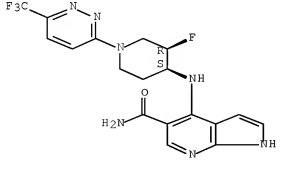
RN 1039738-53-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(5-cyano-2-thiazolyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

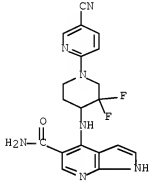


RN 1039738-55-0 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-3-fluoro-1-[6-(trifluoromethyl)-3-pyridazinyl]-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

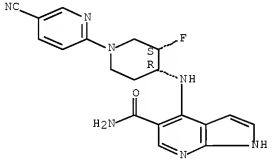


RN 1039738-57-2 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[1-(5-cyano-2-pyridinyl)-3,3-difluoro-4-piperidinyl]amino]- (CA INDEX NAME)



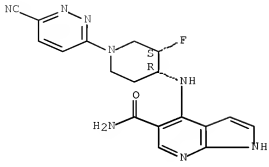
RN 1039738-60-7 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3S,4R)-1-(5-cyano-2-pyridinyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



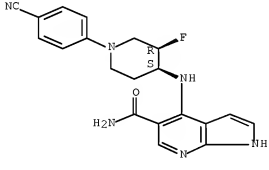
RN 1039738-62-9 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3S,4R)-1-(6-cyano-3-pyridazinyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



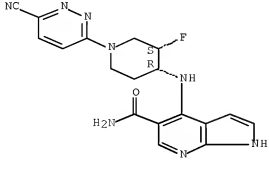
RN 1039738-64-1 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(4-cyanophenyl)-3-fluoro-4-piperidinyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



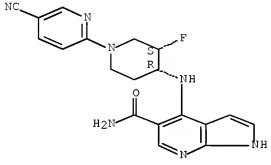
RN 1039738-79-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(6-cyano-3-pyridazinyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



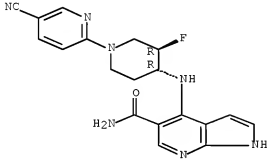
RN 1039739-42-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(5-cyano-2-pyridinyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



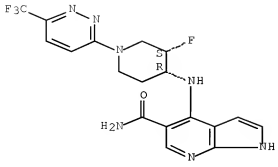
RN 1039739-84-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4R)-1-(5-cyano-2-pyridinyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



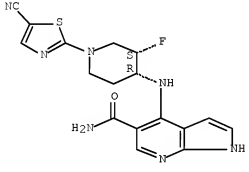
RN 1039739-90-6 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-3-fluoro-1-[6-(trifluoromethyl)-3-pyridazinyl]-4-
piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



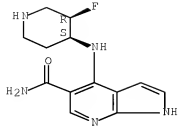
RN 1039739-91-7 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-1-(5-cyano-2-thiazolyl)-3-fluoro-4-piperidinyl]amino]-, rel-
(CA INDEX NAME)

Relative stereochemistry.



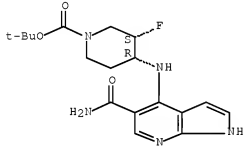
IT 1039738-35-6P 1039740-43-6P 1039740-45-8P
1039740-46-9P 1039740-48-1P 1039740-49-2P
1039740-50-5P 1039740-52-7P 1039740-54-9P
1039740-75-4P 1039740-76-5P 1039740-79-8P
1039741-09-7P 1039741-18-6P 1039741-23-5P
1039741-25-7P 1039741-29-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of fused pyridine derivs. as JAK3 inhibitors)
RN 1039738-35-6 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]-, rel- (CA INDEX NAME)

Relative stereochemistry.



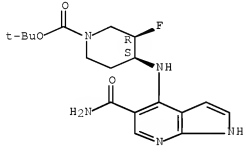
RN 1039740-43-6 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[5-(aminocarbonyl)-1H-pyrrolo[2,3-b]pyridin-4-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 1039740-45-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[5-(aminocarbonyl)-1H-pyrrolo[2,3-b]pyridin-4-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3R,4S)- (CA INDEX NAME)

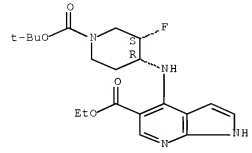
Absolute stereochemistry.



RN 1039740-46-9 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid, 4-[[(3R,4S)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-

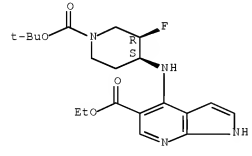
, ethyl ester, rel-  (CA INDEX NAME)

Relative stereochemistry.



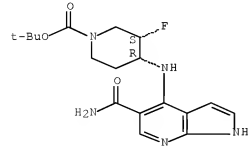
RN  1039740-48-1  CAPLUS
CN  1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3R,4S)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
, ethyl ester  (CA INDEX NAME)

Absolute stereochemistry.



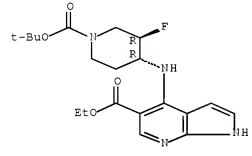
RN  1039740-49-2  CAPLUS
CN  1-Piperidinecarboxylic acid, 4-[[5-(aminocarbonyl)-1H-pyrrolo[2,3-
b]pyridin-4-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3S,4R)-  (CA
INDEX NAME)

Absolute stereochemistry.



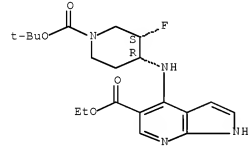
RN 1039740-50-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3R,4R)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
, ethyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

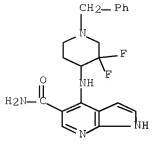


RN 1039740-52-7 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3S,4R)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.

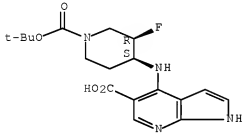


RN 1039740-54-9 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[3,3-difluoro-1-(phenylmethyl)-4-piperidinyl]amino]- (CA INDEX NAME)



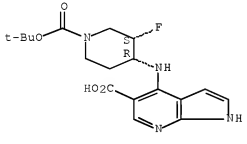
RN 1039740-75-4 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3R,4S)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
(CA INDEX NAME)

Absolute stereochemistry.



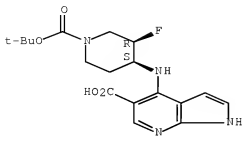
RN 1039740-76-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3S,4R)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
(CA INDEX NAME)

Absolute stereochemistry.

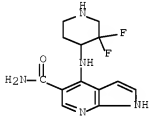


RN 1039740-79-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxylic acid,
4-[[(3R,4S)-1-[(1,1-dimethylethoxy)carbonyl]-3-fluoro-4-piperidinyl]amino]-
, rel- (CA INDEX NAME)

Relative stereochemistry.

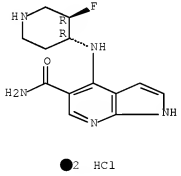


RN 1039741-09-7 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[(3,3-difluoro-4-piperidinyl)amino]- (CA INDEX NAME)



RN 1039741-18-8 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-, hydrochloride (1:2), rel- (CA INDEX NAME)

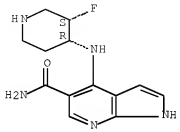
Relative stereochemistry.



●2 HCl

RN 1039741-23-5 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide,
4-[[(3S,4R)-3-fluoro-4-piperidinyl]amino]-, hydrochloride (1:2) (CA INDEX NAME)

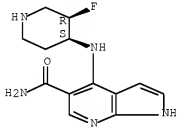
Absolute stereochemistry.



●2 HCl

RN 1039741-25-7 CAPLUS
CN 1H-Pyrrolo[2,3-b]pyridine-5-carboxamide, 4-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]-, hydrochloride (1:2) (CA INDEX NAME)

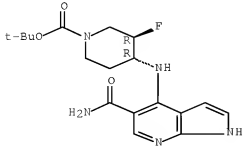
Absolute stereochemistry.



●2 HCl

RN 1039741-29-1 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[5-(aminocarbonyl)-1H-pyrrolo[2,3-b]pyridin-4-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.

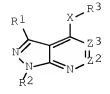


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1028755 CAPLUS Full-text
DOCUMENT NUMBER: 147:365493
TITLE: Heterobicyclic pyrazole compounds as Met tyrosine kinase inhibitors and their preparation and use
INVENTOR(S): Blake, James F.; Boyd, Steven Armen; Cohen, Frederick; De Meese, Jason; Fong, Kin Chiu; Gaudino, John J.; Kaplan, Tomas; Marlow, Allison L.; Seo, Jeongbeob; Thomas, Allen A.; Tian, Hongqi; Young, Wendy B.
PATENT ASSIGNEE(S): Array Biopharma Inc., USA; Genentech, Inc.
SOURCE: PCT Int. Appl., 273 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2007103308 | A2 | 20070913 | WO 2007-US5583 | 20070306 |
| WO 2007103308 | A3 | 20080207 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | | |
| AU 2007224020 | A1 | 20070913 | AU 2007-224020 | 20070306 |
| US 20070238726 | A1 | 20071011 | US 2007-714342 | 20070306 |
| PRIORITY APPLN. INFO.: | | | US 2006-779805P P | 20060307 |
| | | | US 2006-874832P P | 20061214 |
| | | | WO 2007-US5583 W | 20070306 |

OTHER SOURCE(S): MARPAT 147:365493
GI



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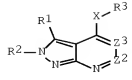
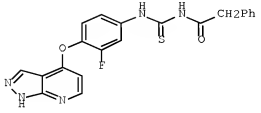


II



III

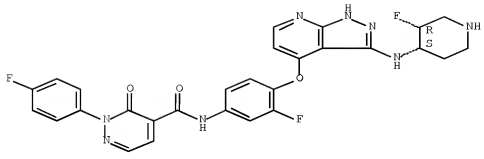
AB The invention is related to the preparation of I and II [X = O, S, NH and derivs.; Z2, Z3 = independently CH and derivs., N, wherein none or one of Z2, and Z3 = N; R1 = H, (un)substituted alk(en/yn)yl, (hetero)aryl, etc.; R2 = H, CF3, CN, SH and derivs., SO2NH2 and derivs., etc.; R3 = (un)substituted carbocyclyl, heterocyclyl, (hetero)/aryl] and their pharmaceutically acceptable salts which are useful for inhibiting receptor tyrosine kinases and for treating disorders mediated thereby. Methods of using compds. I and II and their stereoisomers, geometric isomers, tautomers, solvates, metabolites and pharmaceutically acceptable salts, for in vitro, in situ, and in vivo diagnosis, prevention or treatment of such disorders in mammalian cells, or associated pathol. conditions are disclosed. Thus, pyrazolopyridine III was prepared by a multi-step synthesis via 1-(4-methoxybenzyl)-1H-pyrazolo[3,4-b]pyridin-4-ol intermediate which was obtained from 1-(4-methoxybenzyl)-1H-pyrazol-5-amine and Meldrum's acid. Certain I and II had IC50's < 1 μM in a c-Met enzyme assay.

IT 949559-96-0P 949559-99-3P 949560-05-8P
949560-09-2P 949560-33-2P 949560-35-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of heterobicyclic pyrazole compds. as Met tyrosine kinase inhibitors useful in the treatment of diseases)

RN 949559-96-0 CAPLUS

CN 4-Pyridazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

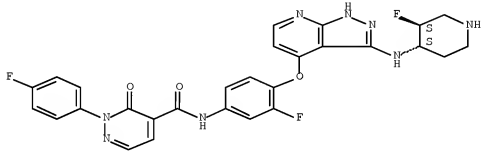
Relative stereochemistry.



●2 HCl

RN 949559-99-3 CAPLUS
CN 4-Pyridazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

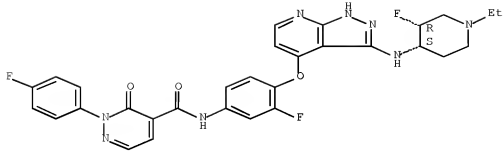
Relative stereochemistry.



●2 HCl

RN 949560-05-8 CAPLUS
CN 4-Pyridazinecarboxamide, N-[4-[[3-[[(3R,4S)-1-ethyl-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]-3-fluorophenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

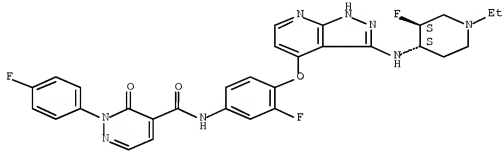
Relative stereochemistry.



●2 HCl

RN 949560-09-2 CAPLUS
CN 4-Pyridazinecarboxamide, N-[4-[[3-[[(3R,4R)-1-ethyl-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]-3-fluorophenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

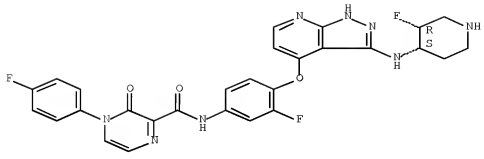
Relative stereochemistry.



●2 HCl

RN 949560-33-2 CAPLUS
CN 2-Pyrazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-4-(4-fluorophenyl)-3,4-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

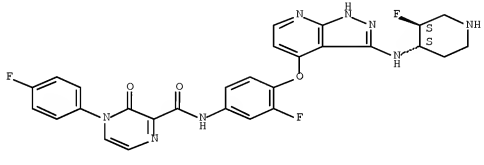
Relative stereochemistry.



●2 HCl

RN 949560-35-4 CAPLUS
CN 2-Pyrazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-4-(4-fluorophenyl)-3,4-dihydro-3-oxo-, hydrochloride (1:2), rel- (CA INDEX NAME)

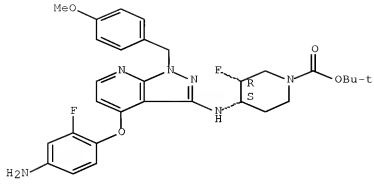
Relative stereochemistry.



●2 HCl

IT 949559-97-1P 949559-98-2P 949560-00-3P
949560-01-4P 949560-07-0P 949560-08-1P
949560-11-6P 949560-12-7P 949560-34-3P
949560-36-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of heterobicyclic pyrazole compds. as Met tyrosine kinase inhibitors useful in the treatment of diseases)
RN 949559-97-1 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[4-(4-amino-2-fluorophenoxy)-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-3-fluoro-, 1,1-dimethylethyl ester, (3R,4S)-rel- (CA INDEX NAME)

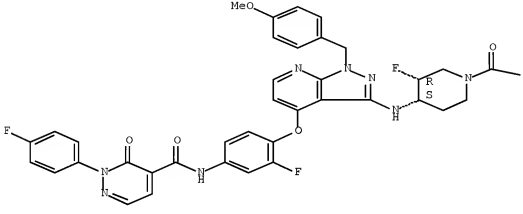
Relative stereochemistry.




RN 949559-98-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[[4-[2-fluoro-4-[[[2-(4-fluorophenyl)-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]phenoxy]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-, 1,1-dimethylethyl ester, (3R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



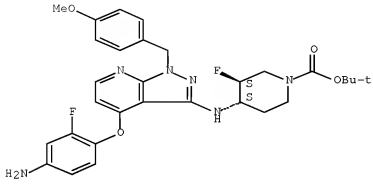

PAGE 1-B

OBu-t

RN 949560-00-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[4-(4-amino-2-fluorophenoxy)-1-[(4-

methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-3-fluoro-,
1,1-dimethylethyl ester, (3R,4R)-rel-  (CA INDEX NAME)

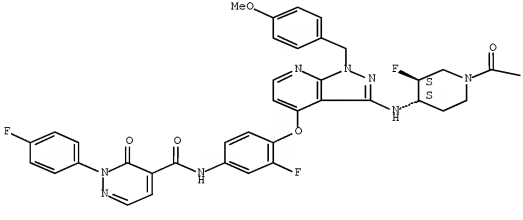
Relative stereochemistry.




RN  949560-01-4  CAPLUS
CN  1-Piperidinecarboxylic acid, 3-fluoro-4-[[4-[2-fluoro-4-[[[2-(4-
fluorophenyl)-2,3-dihydro-3-oxo-4-pyridazinyl]carbonyl]amino]phenoxy]-1-
[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-,
1,1-dimethylethyl ester, (3R,4R)-rel-  (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A




PAGE 1-B

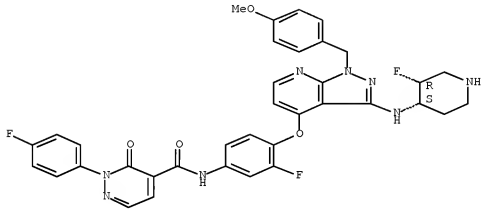
OBu-t

RN 949560-07-0 CAPLUS
CN 4-Pyridazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4S)-3-fluoro-4-piperidinyl]amino]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, rel-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 949560-06-9
CMF C36 H31 F3 N8 O4

Relative stereochemistry.

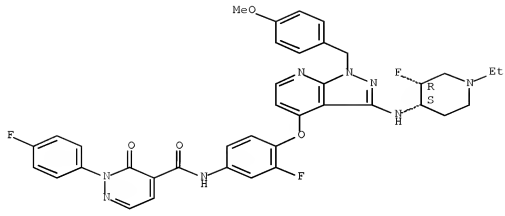


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 949560-08-1 CAPLUS
CN 4-Pyridazinecarboxamide, N-[4-[[3-[[(3R,4S)-1-ethyl-3-fluoro-4-piperidinyl]amino]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]-3-fluorophenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, rel- (CA INDEX NAME)

Relative stereochemistry.

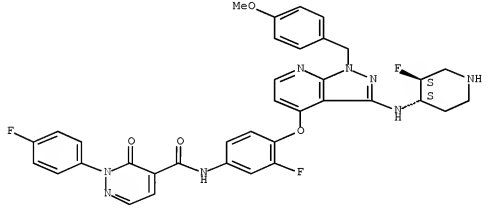


RN 949560-11-6 CAPLUS
CN 4-Pyridazinecarboxamide, N-[3-fluoro-4-[[3-[[(3R,4R)-3-fluoro-4-piperidinyl]amino]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]phenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, rel-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)

CM 1

CRN 949560-10-5
CMF C36 H31 F3 N8 O4

Relative stereochemistry.

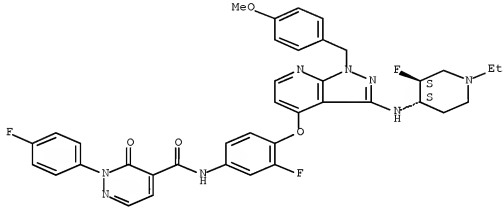


CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 949560-12-7 CAPLUS
CN 4-Pyridazinecarboxamide, N-[4-[[3-[[(3R,4R)-1-ethyl-3-fluoro-4-piperidinyl]amino]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-4-yl]oxy]-3-fluorophenyl]-2-(4-fluorophenyl)-2,3-dihydro-3-oxo-, rel- (CA INDEX NAME)

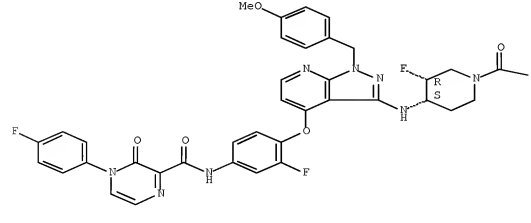
Relative stereochemistry.



RN 949560-34-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[[4-[2-fluoro-4-[[[4-(4-fluorophenyl)-3,4-dihydro-3-oxo-2-pyrazinyl]carbonyl]amino]phenoxy]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-, 1,1-dimethylethyl ester, (3R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



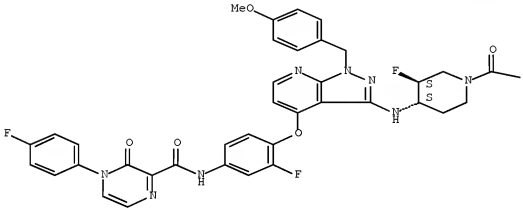
PAGE 1-B

—OBu-t

RN 949560-36-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[[4-[2-fluoro-4-[[[4-(4-fluorophenyl)-3,4-dihydro-3-oxo-2-pyrazinyl]carbonyl]amino]phenoxy]-1-[(4-methoxyphenyl)methyl]-1H-pyrazolo[3,4-b]pyridin-3-yl]amino]-, 1,1-dimethylethyl ester, (3R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A




PAGE 1-B

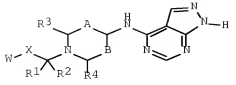
—OBu-t

ACCESSION NUMBER: 2006:1124432 CAPLUS Full-text
DOCUMENT NUMBER: 145:455026
TITLE: N-alkyl-azacycloalkyl compounds as NMDA/NR2B antagonists and their preparation, pharmaceutical compositions, and use in the treatment of various diseases
INVENTOR(S): Layton, Mark E.; Rodzinak, Kevin J.; Kelly, Michael J., III; Sanderson, Philip E.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 88pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

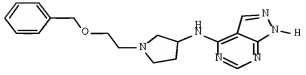
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006113471 | A2 | 20061026 | WO 2006-US14139 | 20060414 |
| WO 2006113471 | A3 | 20071213 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | | |
| AU 2006236625 | A1 | 20061026 | AU 2006-236625 | 20060414 |
| CA 2603876 | A1 | 20061026 | CA 2006-2603876 | 20060414 |
| EP 1874318 | A2 | 20080109 | EP 2006-750229 | 20060414 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU | | | | |
| JP 2008536927 | T | 20080911 | JP 2008-507751 | 20060414 |
| IN 2007CN04217 | A | 20071221 | IN 2007-CN4217 | 20070924 |
| CN 101163482 | A | 20080416 | CN 2006-80012726 | 20071017 |

PRIORITY APPLN. INFO.: US 2005-672639P P 20050419
WO 2006-US14139 W 20060414

OTHER SOURCE(S): MARPAT 145:455026
GI



I



II

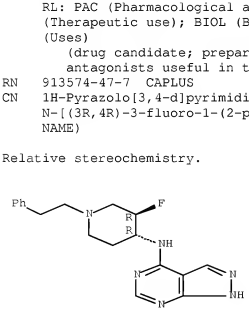
AB Compds. represented by formula I: and/or pharmaceutically acceptable salts, individual enantiomers and stereoisomers thereof, are effective as NMDA/NR2B antagonists useful for treating conditions such as pain, Parkinson's disease, Alzheimer's disease, epilepsy, depression, anxiety, ischemic brain injury including stroke. Compds. of formula I wherein W is (un)substituted (hetero)aryl; X is absent and (un)substituted C1-4 alkoxy and (un)substituted C1-3 alkyl; A is a bond and (un)substituted C2-3 alkyl, etc.; B is (un)substituted C1 alkyl, etc.; R1 and R2 are independently H and C1-3 alkyl; R3 and R4 are independently H, OH, CN and (un)substituted C1-3 alkyl, etc.; and their pharmaceutically acceptable salts, enantiomers and stereoisomers thereof are claimed. Example compound II was prepared by alkylation of tert-Bu pyrrolidin-3-ylcarbamate with [(2-bromoethoxy)methyl]benzene; the resulting tert-Bu [1-[2-(benzyloxy)ethyl]pyrrolidin-3-yl]carbamate underwent hydrolysis to give 1-[2-(benzyloxy)ethyl]pyrrolidin-3-amine, which underwent coupling with 4-chloro-1-(tetrahydropyran-2-yl)-1H-pyrazolo[3,4-d]pyrimidine to give compound II. All the invention compds. were evaluated for their NMDA/NR2B antagonistic activity.

IT 913574-47-7P 913574-48-8P 913574-49-9P
913574-50-2P 913574-51-3P 913574-52-4P
913574-53-5P 913574-54-6P 913574-55-7P
913574-56-8P 913574-66-0P 913574-67-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of N-alkyl-azacycloalkyl as NMDA/NR2B antagonists useful in treatment of diseases)

RN 913574-47-7 CAPLUS

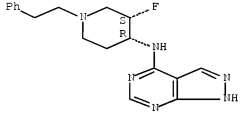
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine, N-[(3R,4R)-3-fluoro-1-(2-phenylethyl)-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



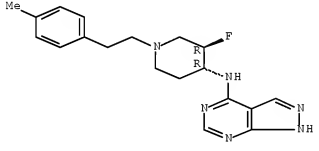
RN 913574-48-8 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4S)-3-fluoro-1-(2-phenylethyl)-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



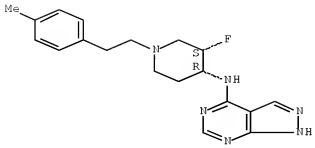
RN 913574-49-9 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-3-fluoro-1-[2-(4-methylphenyl)ethyl]-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



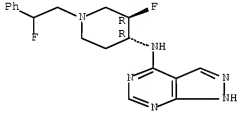
RN 913574-50-2 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4S)-3-fluoro-1-[2-(4-methylphenyl)ethyl]-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



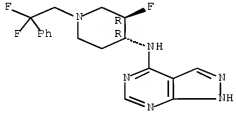
RN 913574-51-3 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-3-fluoro-1-(2-fluoro-2-phenylethyl)-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



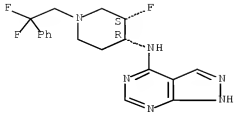
RN 913574-52-4 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-1-(2,2-difluoro-2-phenylethyl)-3-fluoro-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



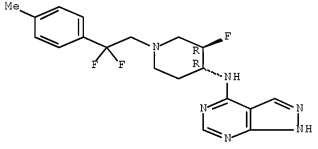
RN 913574-53-5 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4S)-1-(2,2-difluoro-2-phenylethyl)-3-fluoro-4-piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



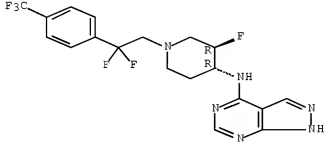
RN 913574-54-6 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-1-[2,2-difluoro-2-(4-methylphenyl)ethyl]-3-fluoro-4-
piperidinyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



RN 913574-55-7 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-1-[2,2-difluoro-2-[4-(trifluoromethyl)phenyl]ethyl]-3-fluoro-4-
piperidinyl]-, rel- (CA INDEX NAME)

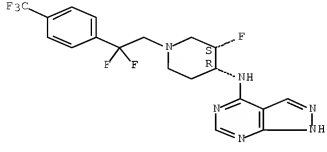
Relative stereochemistry.



RN 913574-56-8 CAPLUS
CN 1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4S)-1-[2,2-difluoro-2-[4-(trifluoromethyl)phenyl]ethyl]-3-fluoro-4-

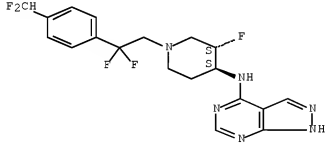
piperidinyl]-, rel-  (CA INDEX NAME)

Relative stereochemistry.



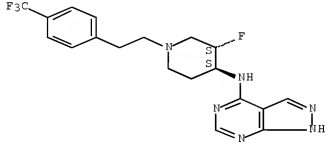
RN  913574-66-0  CAPLUS
CN  1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-1-[2-[4-(difluoromethyl)phenyl]-2,2-difluoroethyl]-3-fluoro-4-
piperidinyl]-, rel-  (CA INDEX NAME)

Relative stereochemistry.



RN  913574-67-1  CAPLUS
CN  1H-Pyrazolo[3,4-d]pyrimidin-4-amine,
N-[(3R,4R)-3-fluoro-1-[2-[4-(trifluoromethyl)phenyl]ethyl]-4-piperidinyl]-
, rel-  (CA INDEX NAME)

Relative stereochemistry.



L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:630453 CAPLUS Full-text

DOCUMENT NUMBER: 145:103564

TITLE: Process for preparation of chiral piperidines via asymmetric hydrogenation of dehydropiperidines using metal chiral phosphine catalyst complexes.

INVENTOR(S): Nelson, Todd D.; Kress, Michael H.; Krska, Shawn W.; Mitten, Jeffrey V.; Sun, Yongkui

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

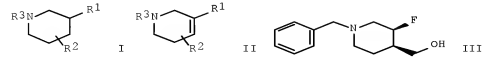
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006069287 | A1 | 20060629 | WO 2005-US46718 | 20051221 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| AU 2005319071 | A1 | 20060629 | AU 2005-319071 | 20051221 |
| CA 2591738 | A1 | 20060629 | CA 2005-2591738 | 20051221 |
| EP 1838673 | A1 | 20071003 | EP 2005-855301 | 20051221 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | |
| CN 101084191 | A | 20071205 | CN 2005-80044112 | 20051221 |
| JP 2008525486 | T | 20080717 | JP 2007-548500 | 20051221 |
| IN 2007CN02318 | A | 20070907 | IN 2007-CN2318 | 20070529 |
| US 20080086006 | A1 | 20080410 | US 2007-793944 | 20071203 |
| PRIORITY APPLN. INFO.: | | | US 2004-638157P P | 20041222 |
| | | | WO 2005-US46718 W | 20051221 |

OTHER SOURCE(S): CASREACT 145:103564; MARPAT 145:103564

GI




AB Title compds. [I; R1 = halo, O, CONH2, N, S, Si, (substituted) alkyl, aryl; R2 = O, amino, halo, CONH2, N, S, (substituted) alkyl; R3 = S, (substituted)

alkyl, aryl, P, Si, PhCH2, CBZ, carbamate, alkylaryl, aryloxycarbonyl], were prepared by asym. reduction of dehydropiperidines (II; variables as above) in the presence of metal precursors complexed to mono- or biphosphine ligands. Thus, II.HCl (R1 = F; R2 = 4-CH2OH; R3 = PhCH2) (preparation given) was hydrogenated in CH2Cl2 in the presence of (R,R)-Walphos and [(COD)RhCl]2 under 85 psig H2 at 50° for 18.75 h to give 74.4% title compound (III).

IT 808733-05-3P

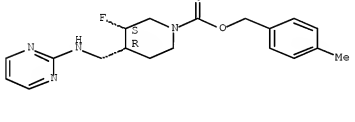
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of chiral piperidines via asym. hydrogenation of dehydropiperidines using metal chiral phosphine catalyst complexes)

RN 808733-05-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.




REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1080888 CAPLUS Full-text

DOCUMENT NUMBER: 142:56340

TITLE: 4-Heteroarylamino-substituted 3-fluoro-piperidines as NMDA/NR2B antagonists, and their preparation, pharmaceutical compositions, and methods of use

INVENTOR(S): Liverton, Nigel J.; Claiborne, Christopher F.; Claremon, David A.; McCauley, John A.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004108705 | A1 | 20041216 | WO 2004-US17175 | 20040528 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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|---|---|---|---|---|
| AU 2004245522 | A1 | 20041216 | AU 2004-245522 | 20040528 |
| CA 2527093 | A1 | 20041216 | CA 2004-2527093 | 20040528 |
| EP 1648882 | A1 | 20060426 | EP 2004-753896 | 20040528 |
| EP 1648882 | B1 | 20080806 | | |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

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|---|---|---|---|---|
| BR 2004010837 | A | 20060627 | BR 2004-10837 | 20040528 |
| CN 1798744 | A | 20060705 | CN 2004-80015322 | 20040528 |
| JP 2006526650 | T | 20061124 | JP 2006-515051 | 20040528 |
| JP 3927228 | B2 | 20070606 | | |
| AT 403651 | T | 20080815 | AT 2004-753896 | 20040528 |
| MX 2005PA13151 | A | 20060317 | MX 2005-PA13151 | 20051202 |
| IN 2005DN05951 | A | 20080509 | IN 2005-DN5951 | 20051220 |
| NO 2006000020 | A | 20060303 | NO 2006-20 | 20060103 |
| PRIORITY APPLN. INFO.: | | | US 2003-475938P P | 20030604 |
| | | | WO 2004-US17175 W | 20040528 |

OTHER SOURCE(S): MARPAT 142:56340
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

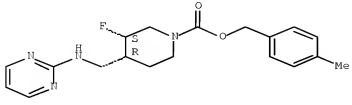
AB Title compds. I and their pharmaceutically acceptable salts are disclosed [wherein: HetAr is a 5- or 6-membered heteroarom. ring containing 1 or 2 N ring atoms, thiazolyl, or thiadiazolyl; HetAr is optionally substituted with 1 or 2 substituents, each substituent independently is C1-4 alkyl, F, Cl, Br, or iodo; A is a bond or C1-2 alkylene; and B is aryl-(CH2)0-3OC(O)-, indanyl-(CH2)0-3OC(O)-, aryl-(CH2)1-3C(O)-, arylcyclopropyl-C(O)-, or aryl-(CH2)1-3NHC(O)-, wherein any aryl is optionally substituted by 1-5 substituents, each substituent is independently C1-4 alkyl, F, or Cl]. I are effective as NMDA NR2B antagonists, useful for treating conditions such as, for example, Parkinson's disease, Alzheimer's disease, migraine, epilepsy and pain. Seven specific examples are claimed, and these plus various salts were prepared For instance, invention compound II was prepared in 8 steps: (1) coupling of CDI with 4-MeC6H4CH2OH and 4-piperidone HCl; (2) α-fluorination of the piperidone carbonyl; (3) Witting reaction of the piperidone carbonyl with Ph3P:CHCO2Et; (4) stereoselective reduction of the resulting olefin to give primarily cis-isomeric ester III; (5) alkaline saponification of the Et ester; (6) conversion of the resulting acid to an amine with diphenylphosphoryl azide; (7) heteroarylation of the amine with 2-chloropyrimidine; and (8) chiral HPLC. In both (1) a cell-based functional assay to determine IC50 for inhibition of NR1A/NR2B receptors in Ltk- cells, and (2) a radioligand binding assay using tritiated AMD-2 (preparation given) to determine Ki, compds. I had values of less than 50 μM, with these values advantageously being even lower than 0.1 μM.

IT 808732-98-1P, (-)-(3S,4R)-4-Methylbenzyl 3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of heteroarylamino-substituted fluoropiperidines as NMDA/NR2B receptor antagonists)

RN 808732-98-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, (3S,4R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).




IT 808732-99-2P, (+)-(3R,4S)-4-Methylbenzyl
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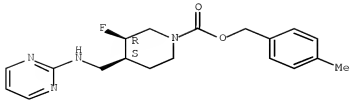
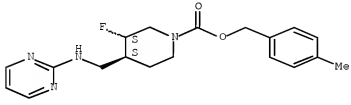
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
808733-01-9P, (+)-trans-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
808733-02-0P, (-)-N-[[(3S,4R)-cis-3-Fluoro-1-[((1R,2R)-2-
phenylcyclopropyl)carbonyl]piperidin-4-yl]methyl]pyrimidin-2-amine
808733-03-1P, (-)-cis-4-Methylbenzyl
3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]piperidine-1-carboxylate
808733-04-2P, (+)-trans-4-Methylbenzyl
3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]piperidine-1-carboxylate
808733-05-3P, cis-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
808733-06-4P, (-)-(3S,4R)-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
hydrochloride 808733-07-5P, (+)-(3R,4S)-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
hydrochloride 808733-08-6P, (-)-trans-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
hydrochloride 808733-09-7P, (+)-trans-4-Methylbenzyl
3-fluoro-4-[(pyrimidin-2-ylamino)methyl]piperidine-1-carboxylate
hydrochloride 808733-10-0P,
(-)-N-[[(3S,4R)-cis-3-Fluoro-1-[((1R,2R)-2-
phenylcyclopropyl)carbonyl]piperidin-4-yl]methyl]pyrimidin-2-amine
hydrochloride 808733-11-1P, (-)-cis-4-Methylbenzyl
3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]piperidine-1-carboxylate
hydrochloride
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(drug candidate; preparation of heteroarylamino-substituted
fluoropiperidines as NMDA/NR2B receptor antagonists)
RN 808732-99-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-,
(4-methylphenyl)methyl ester, (3R,4S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



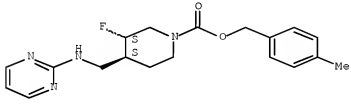
RN 808733-00-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, (3S,4S)-rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



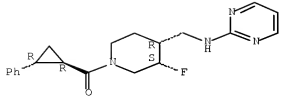
RN 808733-01-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4R)-rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.



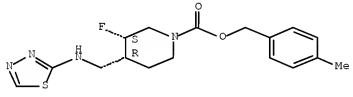
RN 808733-02-0 CAPLUS
CN Methanone, [(3S,4R)-3-fluoro-4-[(2-pyrimidinylamino)methyl]-1-piperidinyl][(1R,2R)-2-phenylcyclopropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



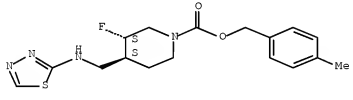
RN 808733-03-1 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]-, (4-methylphenyl)methyl ester, (3S,4R)-rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.



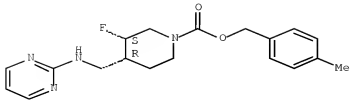
RN 808733-04-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4R)-rel-(+)- (CA INDEX NAME)

Rotation (+). Absolute stereochemistry unknown.



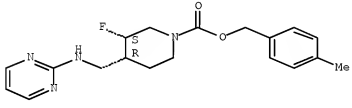
RN 808733-05-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 808733-06-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, hydrochloride (1:1), (3S,4R)- (CA INDEX NAME)

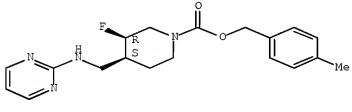
Absolute stereochemistry. Rotation (-).



● HCl

RN 808733-07-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, hydrochloride (1:1), (3R,4S)- (CA INDEX NAME)

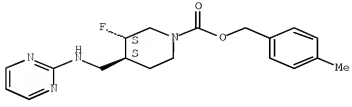
Absolute stereochemistry. Rotation (+).



● HCl

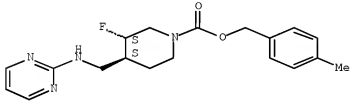
RN 808733-08-6 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, hydrochloride (1:1), (3S,4S)-rel-(-)- (CA INDEX NAME)

Rotation (-).  Absolute stereochemistry unknown.



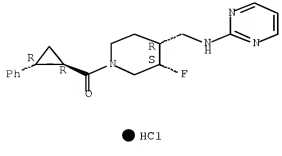

RN  808733-09-7  CAPLUS
CN  1-Piperidinecarboxylic acid, 3-fluoro-4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester, hydrochloride (1:1), (3R,4R)-rel-(+)-  (CA INDEX NAME)

Rotation (+).  Absolute stereochemistry unknown.



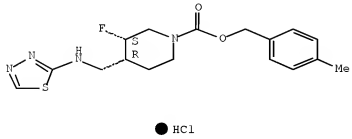

RN  808733-10-0  CAPLUS
CN  Methanone, [(3S,4R)-3-fluoro-4-[(2-pyrimidinylamino)methyl]-1-piperidinyl][(1R,2R)-2-phenylcyclopropyl]-, hydrochloride (1:1)  (CA INDEX NAME)

Absolute stereochemistry.  Rotation (-).



RN 808733-11-1 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-fluoro-4-[(1,3,4-thiadiazol-2-ylamino)methyl]-, (4-methylphenyl)methyl ester, hydrochloride (1:1), (3S,4R)-rel-(-)- (CA INDEX NAME)

Rotation (-). Absolute stereochemistry unknown.




REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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